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(54) Sensor for measurement of a chemical species susceptible to dehydrogenation.

(57) An electrode is provided for a single-use sensing device in a clinical chemical analyzer for amperometrically determining the level, in a body fluid, of a chemical species susceptible to dehydrogenation in the presence of a dehydrogenase enzyme. The electrode has a coating comprising the dehydrogenase enzyme, a perfluorosulfonic acid polymer, methylene blue and a cofactor of the group consisting of NAD^+ and NADP^+ . In a preferred embodiment, the coating also includes a water soluble resinous polymer and a cured aqueous emulsion adhesive.

In another embodiment, the sensor is used to measure a hydrogenatable chemical species, in which case the cofactor is in hydrogenated form. In still another embodiment, the sensor is used to measure a dehydrogenase enzyme, in which case the enzyme is omitted from the coating and a dehydrogenatable chemical species is substituted therefor.

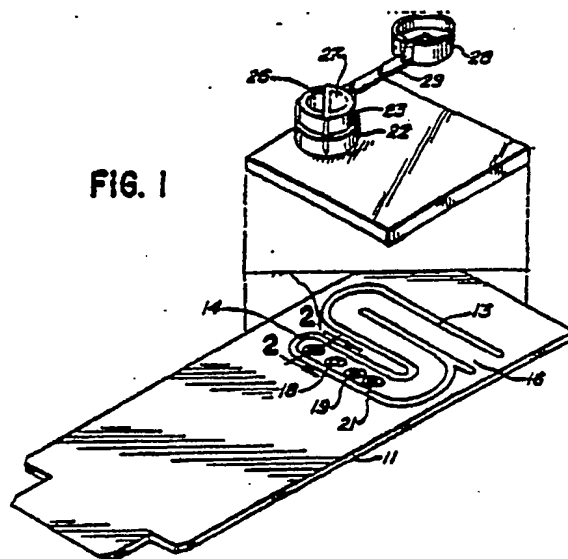


FIG. 1



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EUROPEAN SEARCH REPORT

Application Number

EP 88 30 9282

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	EP-A-0 125 137 (GENETICS INTERNATIONAL INC.) * page 3, line 21 - page 6, line 10; page 24, line 1 - page 25, line 21; pages 32,33 *	1,4,12,16, 17,21,14, 27,28,30	C 12 M 1/40 G 01 N 27/30 G 01 N 27/46 // C 12 Q 1/32 C 12 Q 1/54
A	US-A-4 006 061 (L.E. WEEKS et al.) * column 2, lines 40-46 *	1	
A	DE-B-2 243 962 (F. HOFFMANN-LA ROCHE & CO.) * the whole document *	1,5-8,12, 18,19,23	
A	US-A-4 224 125 (K. NAKAMURA et al.) * column 5, lines 10-18; column 11, lines 65 - column 13, line 48 *	1,2,12,13, 17,23	
A	US-A-4 549 951 (M.B.KNUDSON et al.) * column 2, line 67 - column 3, line 3;figure 1b *	1	
D,A	ANALYTICAL CHEMISTRY vol. 54, 1982, pages 1639-1641, Columbus, Ohio, US; C.R. MARTIN et al.: "Dissolution of perfluorinated ion containing polymers" * the whole document *	1	
A	WO-A-8 504 719 (SENTECH MEDICAL CORPORATION) * pages 5,6; figure 2 *	1	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			C 12 M C 12 Q G 01 N
Place of search		Date of completion of search	Examiner
Berlin		22 August 90	DE KOK A.J.
CATEGORY OF CITED DOCUMENTS			
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